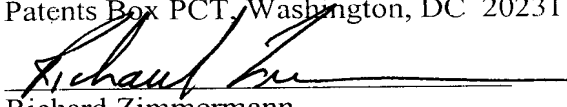


**PATENT**

Docket No.: 28594/38247

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Shannon <i>et al.</i>	)	"EXPRESS MAIL" mailing label No.
	)	EU 424 299 483 US
Serial No: 10/049,953	)	
	)	Date of Deposit: 17 June 2002
Filed: February 19, 2002	)	
	)	I hereby certify that this paper (or fee) is
Title: Recombinant Subunit Vaccine	)	being deposited with the United States
	)	Postal Service "EXPRESS MAIL POST
Group Art Unit: To be assigned	)	OFFICE TO ADDRESSEE" service under
	)	37 C.F.R. §1.10 on the date indicated above
Examiner: To be assigned	)	and is addressed to the Commissioner for
	)	Patents Box PCT, Washington, DC 20231
	)	
	)	
	)	Richard Zimmermann

**STATEMENT PURSUANT TO 37 C.F.R. §§1.825(a) and (b)**

Commissioner for Patents  
Box PCT  
Washington, DC 20231

Sir:

I hereby state that the contents of the substitute paper copy (pages 1-3 submitted herewith) and the substitute computer readable form of the sequence listing submitted herewith in accordance with 37 C.F.R. §§1.825(a) and (b), are the same and do not introduce new matter into the disclosure of the application.

Respectfully submitted,

06/20/2002 HIKAYPAGH 00000029 10049953

01 FC:154

130.00 OP

MARSHALL, GERSTEIN & BORUN  
6300 Sears Tower  
233 South Wacker Drive  
Chicago, Illinois 60606-6357  
(312) 474-6300

By:



Thomas A. Cawley, Jr., Ph.D.

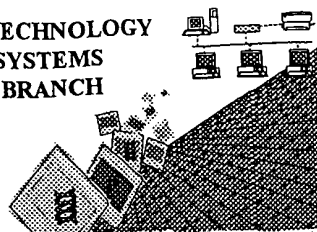
Registration No. 40,994

Attorney for Applicants-

June 17, 2002

5040

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



# RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/049,953  
Source: PCT10  
Date Processed by STIC: 3/5/02

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER** **VERSION 3.1 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

# Raw Sequence Listing Error Summary

PCT10

SERIAL NUMBER: 10/049,953

## ERROR DETECTED

## SUGGESTED CORRECTION

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 \_\_\_\_\_ Wrapped Nucleics  
\_\_\_\_\_ Wrapped Aminos

The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2 \_\_\_\_\_ Invalid Line Length

The rules require that a line not exceed 72 characters in length. This includes white spaces.

3 \_\_\_\_\_ Misaligned Amino  
\_\_\_\_\_ Numbering

The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4 \_\_\_\_\_ Non-ASCII

The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5 \_\_\_\_\_ Variable Length

Sequence(s) \_\_\_\_\_ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6 \_\_\_\_\_ PatentIn 2.0  
\_\_\_\_\_ "bug"

A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) \_\_\_\_\_. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7 \_\_\_\_\_ Skipped Sequences  
(OLD RULES)

Sequence(s) \_\_\_\_\_ missing. If intentional, please insert the following lines for each skipped sequence:  
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
This sequence is intentionally skipped

Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8 \_\_\_\_\_ Skipped Sequences  
(NEW RULES)

Sequence(s) \_\_\_\_\_ missing. If intentional, please insert the following lines for each skipped sequence.  
<210> sequence id number  
<400> sequence id number  
000

9 \_\_\_\_\_ Use of n's or Xaa's  
(NEW RULES)

Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10 ✓ Invalid <213>  
\_\_\_\_\_ Response

Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence

11 ✓ Use of <220>

Sequence(s) \_\_\_\_\_ missing the <220> "Feature" and associated numeric identifiers and responses.  
Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)

12 \_\_\_\_\_ PatentIn 2.0  
\_\_\_\_\_ "bug"

Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13 \_\_\_\_\_ Misuse of n

n can only be used to represent a single nucleotide in a nucleic acid sequence. N is not used to represent any value not specifically a nucleotide.



**Does Not Comply  
Corrected Diskette Needed**

PCT10

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/049,953

DATE: 03/05/2002  
TIME: 14:11:51

Input Set : A:\38247.txt  
Output Set: N:\CRF3\03052002\J049953.raw

→ The type of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

6 <110> APPLICANT: SHANNON ET AL.  
9 <120> TITLE OF INVENTION: RECOMBINANT SUBUNIT VACCINE  
12 <130> FILE REFERENCE: 28594/38247  
C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/049,953  
C--> 15 <141> CURRENT FILING DATE: 2002-02-19  
15 <150> PRIOR APPLICATION NUMBER: PCT/AU00/00988  
16 <151> PRIOR FILING DATE: 2000-08-18  
19 <150> PRIOR APPLICATION NUMBER: AU PQ2337  
20 <151> PRIOR FILING DATE: 1999-08-19  
23 <160> NUMBER OF SEQ ID NOS: 12  
26 <170> SOFTWARE: PatentIn version 3.1  
29 <210> SEQ ID NO: 1  
30 <211> LENGTH: 27  
31 <212> TYPE: DNA  
32 <213> ORGANISM: Primer - invalid response; see error summary sheet, items 10 & 11  
35 <400> SEQUENCE: 1  
36 cgcggtatcca gtgctggcat ttgaaga 27  
39 <210> SEQ ID NO: 2  
40 <211> LENGTH: 28  
41 <212> TYPE: DNA  
42 <213> ORGANISM: Primer  
45 <400> SEQUENCE: 2 28  
46 cgcggtatccc agactgggtgg ccttatga  
49 <210> SEQ ID NO: 3  
50 <211> LENGTH: 28  
51 <212> TYPE: DNA  
52 <213> ORGANISM: Primer  
55 <400> SEQUENCE: 3 28  
56 cacggtatcca gtgcatcaac aacagcct  
64 <210> SEQ ID NO: 4  
65 <211> LENGTH: 31  
66 <212> TYPE: DNA  
67 <213> ORGANISM: Primer  
70 <400> SEQUENCE: 4 31  
71 cgcggtatcca gttttgtttc aagttacaat g  
74 <210> SEQ ID NO: 5  
75 <211> LENGTH: 31  
76 <212> TYPE: DNA  
77 <213> ORGANISM: Primer  
80 <400> SEQUENCE: 5 31  
81 cgcggtatcca gttttgtttc aagttacaat g  
84 <210> SEQ ID NO: 6  
85 <211> LENGTH: 33

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/049,953

DATE: 03/05/2002  
TIME: 14:11:51

Input Set : A:\38247.txt  
Output Set: N:\CRF3\03052002\J049953.raw

86 <212> TYPE: DNA  
87 <213> ORGANISM: Primer  
90 <400> SEQUENCE: 6 33  
91 aactgcagac tagagtgggtt tgccaaagca aca  
94 <210> SEQ ID NO: 7  
95 <211> LENGTH: 28  
96 <212> TYPE: DNA  
97 <213> ORGANISM: Primer  
100 <400> SEQUENCE: 7 28  
101 gcgaagctta ggactctgcg aagtaatc  
104 <210> SEQ ID NO: 8  
105 <211> LENGTH: 31  
106 <212> TYPE: DNA  
107 <213> ORGANISM: Primer  
110 <400> SEQUENCE: 8 31  
111 catgccatgg ttaggactct gcgaagtaat c  
114 <210> SEQ ID NO: 9  
115 <211> LENGTH: 30  
116 <212> TYPE: DNA  
117 <213> ORGANISM: Primer  
120 <400> SEQUENCE: 9 30  
121 cgcaagctta cgctaccact gccaacatga  
127 <210> SEQ ID NO: 10  
128 <211> LENGTH: 28  
129 <212> TYPE: DNA  
130 <213> ORGANISM: Primer  
133 <400> SEQUENCE: 10 28  
134 cgcaagctta gacatcacag taagggga  
137 <210> SEQ ID NO: 11  
138 <211> LENGTH: 28  
139 <212> TYPE: DNA  
140 <213> ORGANISM: Primer  
143 <400> SEQUENCE: 11 28  
144 cgcaagctta gacatcacag taagggga  
147 <210> SEQ ID NO: 12  
148 <211> LENGTH: 33  
149 <212> TYPE: DNA  
150 <213> ORGANISM: Primer  
153 <400> SEQUENCE: 12 33  
154 acgtccatgg ttaagcttga tagcctacgt acc

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/049,953

DATE: 03/05/2002

TIME: 14:11:52

Input Set : A:\38247.txt

Output Set: N:\CRF3\03052002\J049953.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No  
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date